

***Acolastus scopaeus* n. sp. from South Africa and
A. snizeki n. sp. from Kenya**
(Coleoptera: Chrysomelidae: Cryptocephalinae)

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Abstract: Two new Afrotropical species of *Acolastus* Gerstaecker are described and illustrated, *A. scopaeus* from South Africa and *A. snizeki* from Kenya. The placement of the new species in the *Acolastus* species-groups according to the key to Afrotropical species-groups of *Acolastus* (SCHÖLLER 2011) is discussed.

Key words: Coleoptera, Chrysomelidae, Cryptocephalinae, Pachybra-chini, *Acolastus*, Afrotropical, Kenya, South Africa

Introduction

The fauna of Afrotropical *Acolastus* Gerstaecker is still insufficiently known. Three species were previously known from Kenya (SCHÖLLER, 2000), and 18 from South Africa. In this publication, two new species from the before-mentioned countries are described.

Materials and Methods

Included in this study are specimens located in the following collections. FKPC – Frantisek KANTNER personal collection, Dubné, Czech Republic; MESC – Matthias SCHÖLLER personal collection, Berlin, Germany; SANC – National Collection of Insects, Plant Protection Research Institute, Pretoria, Republic of South Africa, Elizabeth GROBBELAAR; TMSA – Transvaal Museum, Pretoria, Republic of South Africa, Ruth MÜLLER; UHPC – Uwe HEINIG personal collection, Berlin, Germany; ZMHUB – Museum für Naturkunde der Humboldt-Universität, Berlin, Germany, Johannes FRISCH, Manfred UHLIG.

The exact label data are cited for the type specimens. The type localities are cited in the original spelling. A slash (/) divides data on different labels, the data are printed if not otherwise mentioned, the author's remarks are presented in brackets, [white] = white label.

Results

Acolastus scopaeus n. sp.

Holotypus (male, SANC) // SOUTH AFRICA C.P., Bainskloof Pass, Wellington, 33.35S 19.06E, 29.xii.1982, R.G. Oberprieler [white] / NATIONAL COLL. OF INSECTS Pretoria, S. Afr. [white] / Holotypus *Acolastus scopaeus* n. sp., des. Matthias Schöller [red]//.

2 Paratypes: 1 male (SANC) 1 male (ZMHUB) same labeling as holotype and / Paratypus *Acolastus scopaeus* n. sp., des. Matthias Schöller [red] /.

Type locality: Republic South Africa, Cape Province, Bainskloof Pass, Wellington, 33°35'S, 19°06'E.

Diagnosis

A small black species with small eyes with shallow canthus, clypeus not distinctly separated from frons, lateral margin of pronotum carinate, pronotum setose, elytra glabrous, basal elytral margin with a triangular tooth bent apically, elytra light brown, along lateral margin and along suture dark brown, interstices of elytral punctures irregularly elevated, pale yellow, granulose, apex of elytra regularly truncated, fore tibia almost straight and fore tarsi simple, abdomen black.

Description of holotype (male)

Habitus: Body cylindrical, small, size [mm] mean \pm SD (max., min., n): length of male 2.25 ± 0.13 (2.40, 2.15, 3), maximum width of elytra at humerus 1.12 ± 0.03 (1.15, 1.10), length of pronotum 0.75 ± 0.05 (0.80, 0.70), width 0.98 ± 0.03 (1.00, 0.95), length of elytron 1.50 ± 0.05 (1.55, 1.45).

Head: Black, puncturation dense and coarse, covered with white adherent setae, head equally vaulted without keels, tubercles, or depressions, eyes small, strongly convex, canthus shallow but distinct, covered with white setae as rest of head, ratio length of eye : minimum distance

between upper lobes of eyes 0.65 : 1.0, i.e. interocular space 1.54 times eye length, clypeus not distinctly separated from frons, apically shallowly concave, labrum transverse, apically straight, pale yellow with apical margin and a longitudinal stripe along midline brown, maxillary and labial palpi brown, last segment of maxillary and labial palpi fusiform, mandibles simple, brown; antennae filiform, antennomeres brown, 7–11 dark brown.

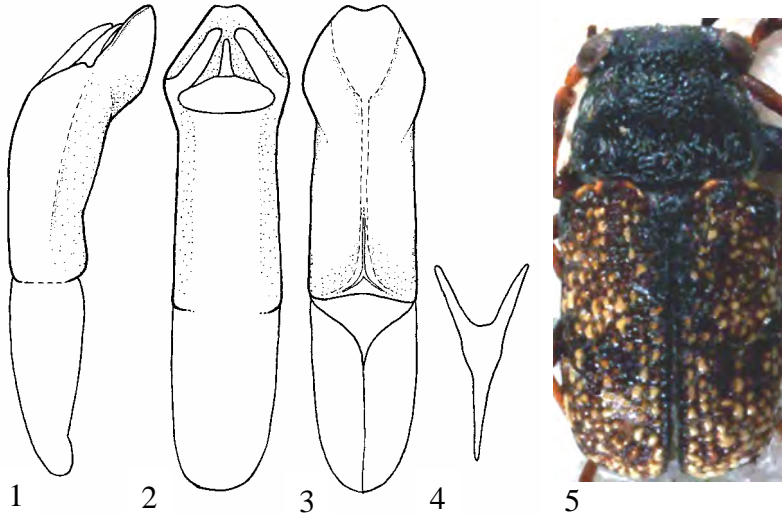
Thorax: Pronotum black, puncturation very dense and coarse, covered with white adherent setae (Fig. 5), apically depressed, lateral margin carinate, not crenulated, not simultaneously visible from above, above lateral margin no elevated swellings, anterior margin regularly rounded at middle, basal margin straight opposite to shoulders, pronotum attenuate anteriorly, almost parallel at middle, strongly depressed towards basal and anterior margin, densely clothed with adherent white setae, but setae not covering pronotal colouration, no setiferous pore in hind corners detected, prothorax black, prosternal process very narrow, lamellose, with long white setae, meso- and metathorax black, metathorax strongly swollen, with coarse punctures and rugosities; scutellum black with dense coarse punctures densely covered by white setae; elytra truncate, light brown, along lateral margin and along suture dark brown, without setae, basal elytral margin with a distinctly elevated, triangular tooth bent apically, its base half length of entire basal margin, basal elytral margin between tooth and humerus carinate, not strongly swollen, elytra with carinate yellowish brown side margin, hardly simultaneously visible from above, elytral punctures completely confused, interstices mostly as wide as diameter of punctures, irregularly elevated, pale yellow, granulose (Fig. 5), apex of elytra regularly truncated, clivus with more pale yellow swellings than rest of elytron; epipleuron very narrow, yellowish brown, vanishing at middle of elytron, with few white setae; legs brown, femora dark brown, apices of tibiae and last tarsomeres darkened, fore-tibia almost straight, fore- and mid-tibiae with thick tibial spur, fore-femur swollen, much wider than mid- and hind-femur, fore-femur with a narrow carina and ventrally with rugosities, all femora densely covered with white setae, fore-coxa swollen, but not much larger than mid-coxa, and clothed with white setae, fore-tarsi as mid- and hind-tarsi, first tarsomere of hind-tarsi as long as remaining segments combined, claws of normal size and with a shallow denticle.

Abdomen: Black, puncturation of ventrites and pygidium dense and coarse, densely covered with thick white setae except for an almost glabrous impunctate longitudinal area along midline of ventrites, apical

margin of last ventrite simple, bisinuate; aedeagan lobe straight to ostium, then slightly bent in lateral view (Fig. 1), with apex rounded and laterally depressed, apex of aedeagus feebly notched in dorsal view (Fig. 2), gradually declining towards indistinct shoulders, three sclerites visible in broad ostium, anterior ones spatulate, central one stick-like, ostium basally with a convex incision covered by a membrane, ventral side of aedeagus apically with a heart-shaped vaulting, basally with an inverse Y-shaped carina (Fig. 3), no aedeagal setae were detected, length of aedeagus 0.9 mm, tergal apodeme Y-shaped, apical arms short (Fig. 4).

Female: Not known.

Variability: No significant variability was detected between the three male specimens.



Figs 1–5: *Acolastus scopaeus* n. sp., aedeagus: 1) lateral; 2) dorsal; 3) ventral; 4) tergalapodeme; 5) habitus dorsal.

Etymology: The name *scopaeus* originates from the Greek word scopaios for dwarf, referring to the small body size of the species.

Distribution and biology: Distributed in the Cape Province of South Africa. No information on ecology available. The type locality is located within the Fynbos Biome of South Africa and the Southwest Fynbos Bio-

region (MUCINA & RUTHERFORD, 2006), the vegetation type in that particular area and the roadside next to the pass is 'Hawequas Sandstone Fynbos' (Elizabeth GROBBELAAR, pers. com.).

Acolastus snizeki n. sp.

Holotypus (male, ZMHUB) // KENYA, Voi (Tsavo), / 27.III.-4.IV. 1997, / leg. M. Snizek [white] // Holotypus *Acolastus snizeki* des. Matthias / Schöller [red] //.

37 Paratypes: 1 female (MESC) KENYA, Voi (Tsavo), 22.XI.-2.XII. 1996, leg. M. Snizek; 1 female (MESC) KENYA, S.E., Taveta env., 16.IV. 2004, M. Snizek lgt.; 2 males 1 female (MESC) 2 males (UHPC) KENYA SE Kibwezi, E of KIBOKO, 17.4.2007, Lgt. Snizek; 1 male (UHPC) 1 female (MESC) KENYA SE, W of MOMBASA, S of MACKINNON ROAD, 12.-14.4.2007, Lgt. Snizek; 1 female (ZMHUB) KENYA, Coast GARISSA, N of HOLA, 22.4.2008, Lgt. Snizek; 1 male (ZMHUB) 1 female (UHPC) KENYA, EASTERN, E729, SOSOMA, 202 km E OF THIKA, 11.5.07, Snizek; 1 female (TMSA) KENYA SE, VOI, S FOOT SAGALA Mts., 12.12.2007, Lgt. Snizek; 1 male (TMSA) 1 male 1 female (UHPC) KENYA SE, SW of Voi, 8.-12.12.2009, Lgt. Snizek; 1 male (UHPC) 1 female (SANC) KENYA E., E. of NGUNI, NGOMENI, 11.5.2007, Lgt. Snizek; 1 male (SANC), 1 female (UHPC) KENYA, Eastern, N of NGUNI, NGOMENI, 19.-22.4.2007, Snizek; 1 male 2 females (FKPC) KENYA SE VOI, 10.12.1999, Lgt. M. SNIZEK; 1 female 1 male (FKPC) KENYA, Eastern, Katutu-Kithioko, 27.xi.1999, M. Snizek leg.; 1 male (UHPC) KENYA S.E., Tana riv. Prov., 14 km N of Garsan, 9.IV.2004, M. Snizek lgt.; 1 male (UHPC) KENYA S.E., Taveta env., 16.IV.2004, M. Snizek lgt.; 2 females, 1 male (UHPC) KENYA C.S., Mwingi, Nguni, 7.IV. 2004, M. Snizek lgt.; 1 male (UHPC) KENYA EASTERN, MWINGI, KANGONDE, 18.4.2007, Lgt. M. Snizek; 1 female (UHPC) KENYA, EASTERN, E729, SOSOMA, 202 km E OF THIKA, 26.4.08, Snizek; 1 female (UHPC) KENYA, EASTERN, E729, SOSOMA, 202 km E OF THIKA, 20.11.07, Snizek; 1 female (UHPC) KENYA, E, 202 km E THIKA SOSOMA, 3.12.10, Snizek; 1 male (UHPC) KENYA S.E., Tsavo, Voi env., 15.IV.2004, M. Snizek lgt.; 1 female KENYA, Eastern NGUNI, N OF NGOMENI, 30.12.2007, Lgt. Snizek; 1 male (UHPC) KENYA Eastern, E of

THIKA, KANGONDE, 6.4.2007, Lgt. Snižek; all with my label //
Paratypus *Acolastus snizeki* n. sp., des. Matthias Schöller [red] //.

Type locality: Kenya, Voi (Tsavo), 03°23'S, 38°34'E. Voi is a market town in southern Kenya, lying on the edge of the Tsavo National Park.

Diagnosis

A small yellowish brown species with large eyes with distinct canthus, head blackish-brown with a V-shaped longitudinal pair of yellow stripes elevated above the surface on frons, hind corner of pronotum triangularly expanded with three to five tubercles, humerus dark brown and elytral clivus with a bulge, pronotum and elytra sparsely covered with short white setae, and apical part of aedeagus almost parallel in lateral view with apical denticle slightly bent downwards, external morphology of males and females similar.

Description of holotype (male)

Habitus: Body cylindrical, small (Fig. 6), size [mm] mean \pm SD (max., min., n): length of male 2.58 ± 0.19 (2.90, 2.40, 6), length of female 3.03 ± 0.17 (3.20, 2.78, 6), maximum width of elytra at humerus in male 1.27 ± 0.07 (1.40, 1.20), in female 1.43 ± 0.12 (1.60, 1.25), length of pronotum in male 0.85 ± 0.04 (0.90, 0.80), width 1.14 ± 0.13 (1.40, 1.05), length of pronotum in female 0.94 ± 0.08 (1.00, 0.80), width 1.32 ± 0.12 (1.50, 1.20), length of elytron in male 1.60 ± 0.13 (1.85, 1.50) and in female 1.96 ± 0.11 (2.10, 1.80), length of antenna in male 1.52 ± 0.03 (1.55, 1.50) and in female 1.42 ± 0.10 (1.50, 1.30).

Head: Head black, blackish-brown with a V-shaped longitudinal pair of yellow stripes elevated above the surface on frons, puncturation very dense and coarse, densely covered with long white adherent setae, head equally vaulted without keels, tubercles, or depressions, eyes large and approached, strongly convex, canthus broadly rounded, covered with white setae as rest of head, ratio length of eye : minimum distance between upper lobes of eyes 3.90 : 1.90, i.e. interocular space 0.49 times eye length, clypeus not distinctly separated from frons, apically shallowly concave, labrum transverse, apically straight, apically yellow, basally brown, maxillary and labial palpi yellowish brown, last segment of maxillary and labial palpi fusiform, mandibles simple, brown; antennae filiform, short, 0.59 times body length and 0.95 times elytral length, antennomeres yellowish brown.



Fig. 6: *Acolastus snizeki* n.sp, male, habitus dorsal.

Thorax: Pronotum yellowish brown, puncturation dense and coarse, many interstices yellow and bulging, pronotum basally with blurred blackish-brown M-shaped pattern that has no bulging interstices, pronotum sparsely covered with short white adherent setae, sides of pronotum tapering towards apical margin, lateral margin carinate, bulging, not crenulated, simultaneously visible from above, above lateral margin elevated swellings shaped like a doubled lateral carina, anterior margin regularly rounded at middle, basal margin straight opposite to shoulders, pronotum depressed towards basal and anterior margins, but not strongly vaulted in lateral view, sparsely clothed with adherent white setae, hind corner of pronotum triangular, with three tubercles, setiferous pore in hind corners present (Fig. 7), prothorax yellowish brown, prosternal process very narrow, lamellose, with long white setae, meso- and metathorax dark brown, metathorax strongly swollen, with coarse punctures and rugosities; scutellum blackish brown with dense coarse punctures densely covered by white setae; elytra truncate, yellow, humerus and four small spots in apical half of elytron brown, suture light brown, elytra covered by short white adherent setae, basal elytral margin with a distinctly elevated, blunt triangular tooth bent apically, its base one third the length of entire basal margin, basal elytral margin between tooth and humerus carinate, not strongly swollen, elytra with carinate yellowish brown side margin, hardly simultaneously visible from above, elytral punctures confused except for two almost regular rows of punctures parallel to lateral margin and suture, respectively, interstices mostly as wide as diameter of punctures, or smaller, irregularly elevated, pale yellow, granulose (Fig. 6), interstices parallel to lateral margin of elytra strongly swollen, a short transverse callosity at middle of elytron, apex of elytra truncated, clivus with a brown bulge surrounded by

lowish brown, prosternal process very narrow, lamellose, with long white setae, meso- and metathorax dark brown, metathorax strongly swollen, with coarse punctures and rugosities; scutellum blackish brown with dense coarse punctures densely covered by white setae; elytra truncate, yellow, humerus and four small spots in apical half of elytron brown, suture light brown, elytra covered by short white adherent setae, basal elytral margin with a distinctly elevated, blunt triangular tooth bent apically, its base one third the length of entire basal margin, basal elytral margin between tooth and humerus carinate, not strongly swollen, elytra with carinate yellowish brown side margin, hardly simultaneously visible from above, elytral punctures confused except for two almost regular rows of punctures parallel to lateral margin and suture, respectively, interstices mostly as wide as diameter of punctures, or smaller, irregularly elevated, pale yellow, granulose (Fig. 6), interstices parallel to lateral margin of elytra strongly swollen, a short transverse callosity at middle of elytron, apex of elytra truncated, clivus with a brown bulge surrounded by

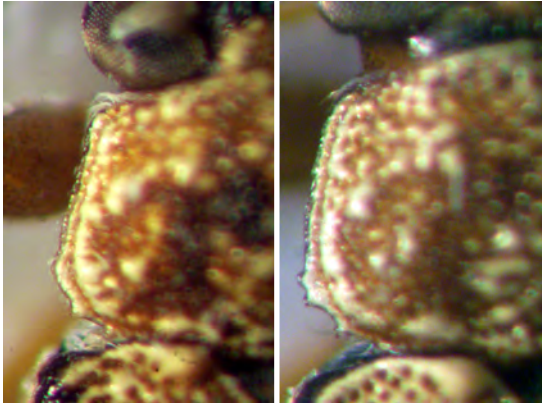


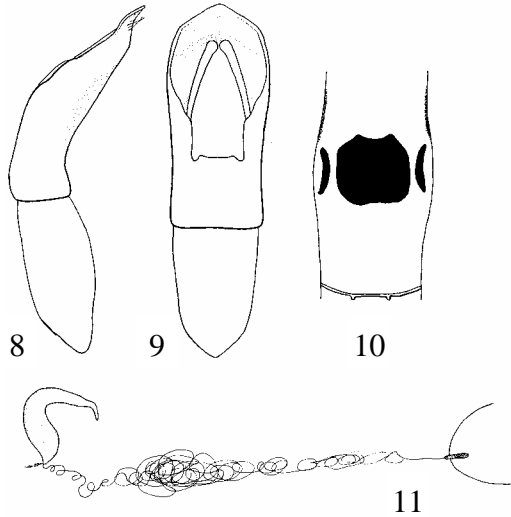
Fig. 7: *Acolastus snizeki* n. sp., left pronotal margin, dorsal view, variability.

pale yellow swellings, epipleuron very narrow, yellowish brown, vanishing behind humerus, with few white setae; legs yellowish brown, femora with pale yellow apices, fore tibia bent (Fig. 6), mid-tibiae with thick brown tibial spur, fore-femur swollen, much wider than mid- and hind-femur, fore-femur with a narrow carina, ventrally with transverse wrinkles, all femora densely covered with white setae, fore-coxa swollen, larger than mid-coxa, fore-tarsi as mid- and hind-tarsi, first male-fore-tarsomere about twice as long as second fore-tarsomere, only feebly emarginate, first tarsomere of hind-tarsi shorter than remaining segments combined (as 1.7 : 2), claws of fore-tarsi relatively large.

Abdomen: Cinnamon brown with yellowish lateral margins, first ventrite and center of second ventrite dark brown, puncturation of ventrites and pygidium dense and coarse, densely covered with adherent white setae except for an almost glabrous impunctate longitudinal area along midline of ventrites, apical margin of last ventrite simple, bisinuate. Aedeagan lobe straight to ostium, then oval, with apex rounded and bearing a shallow denticle at middle, apical part almost parallel in lateral view with denticle slightly bent downwards (Fig. 8), apex of aedeagus with a pair of spatulate sclerites visible in broad ostium surrounding an unpaired rombiform central one (Fig. 9), ventral side of aedeagus regularly vaulted, few aedeagal setae laterally close to apex, length of aedeagus 0.85-0.9 mm.

Female: Angle of V-shaped longitudinal pair of yellow stripes elevated above the surface on frons flatter, antenna shorter, i.e. antenna 0.47 times body length and 0.72 times elytral length, first fore-tarsomere only slightly longer than second fore-tarsomere, apically deeply

emarginate as second one, spermatheca light brown, spermathecal ductus long and thin, not spiral, base of spermathecal ductus stick-like, dark brown (Fig. 10); dorsal central plate of kotpresse nearly as long as wide (Fig. 11), strongly bent upwards both basally and more strongly apically, ventral sclerites not fused, ventral apodemes large.



Figs 8–11: *Acolastus snizeki* n. sp., 8) aedeagus, lateral; 9) aedeagus, dorsal; 10) kotpresse, dorsal; 11) spermatheca and spermathecal ductus.

Variability: The triangularly expanded hind corner of the pronotum might bear three, four or five tubercles, the colouration of the humerus ranges from light brown to blackish-brown, the colouration of the bulge on the elytral clivus ranges from yellow to brown, in melanotic specimens M-shaped pattern on pronotum blackish-brown and additional two spots on each elytron blackish-brown, thorax partly dark brown to completely black, and abdomen except for last ventrite and pygidium black.

Etymology: Dedicated to M. SNIZEK, the collector of this and many other interesting species of Cryptocephalini.

Distribution and biology: Distributed in the South of Kenya. No information on ecology available. The type locality is located near the Tsavo East National Park that has grass- and shrub-savanna habitats as well as semi-desert steppe biotopes. Adults were collected from end of November to mid of May.

Discussion

Acolastus scopaeus n.sp. is placed in the *Acolastus capensis* species-group (SCHÖLLER 2011) according to the following combination of characters: pronotum setose, without transverse bulging above lateral carina, lateral carina simple, elytra brown to black with yellow markings, clivus of elytra with carinae and tubercles. *Acolastus snizeki* n.sp. is placed in the *Acolastus tuberculatus* species-group (SCHÖLLER 2011) according to the following combination of characters: eyes large, close, pronotum setose, with a transverse bulging above lateral carina, elytra setose, hind corner of pronotum triangularly expanded with few tubercles. The species in the *tuberculatus* species-group are externally very similar to those in the Oriental subgenus *Thelylankus* Lopatin, 1997, but the aedeagi in the latter differ by the presence of a ventral lamella of the aedeagan lobe.

A. scopaeus is one of the smallest afro-tropical *Acolastus* species, only *A. capensis* Bryant, 1944 is of similar size below 2.5 mm, and this species is also placed in the *Acolastus capensis*-species group.

Acknowledgements

I would like to thank Beth GROBBELAAR, Pretoria for information on the collection sites and the colleagues responsible for both private and museum collections for enabling me to study the specimens described in this study, especially my friend Uwe HEINIG who provided specimens of his collection for museums.

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Band/Volume: [37 2012](#)

Autor(en)/Author(s):

Artikel/Article: [Acolastus scopaeus n. sp. from South Africa and A. snizeki n. sp. from Kenya \(Coleoptera: Chrysomelidae: Cryptocephalinae\) 39-49](#)